Application No. 10/733,802 Atty. Docket No. 006242.00046

This Listing of Claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1. (Currently Amended) A gypsum panel comprising:
 - a gypsum core having a planar first face and a planar second face,
- a fibrous facing material adhered at least to the first face by gypsum in the gypsum core at least partially penetrating into the fibrous facing material; and
- a radiation cured coating of a radiation curable formulation <u>cured in place</u> on the fibrous facing material, <u>said radiation cured coating having a surface coating of an aggregate material</u> adhered to the radiation cured coating.
- 2. (Original) The gypsum panel of claim 1, wherein the fibrous facing material is a multi-ply paper facing material.
- 3. (Original) The gypsum panel of claim 1, wherein the fibrous facing material is a non-woven mat of mineral fibers.
- 4. (Original) The gypsum panel of claim 3, wherein the fibrous facing material is a single-ply glass fiber mat facing material.
- 5. (Original) The gypsum panel of claim 1, wherein the fibrous facing material is a woven or non-woven mat of synthetic fibers.
- 6. (Original) The gypsum panel of claim 1, wherein the fibrous facing material is a blend of mineral fibers and synthetic fibers.
- 7. (Original) The gypsum panel of claim 3, 4, 5 or 6 wherein the fibrous facing material has a dried coating of an aqueous mixture of a filler and a binder.

₹8. (Currently Amended) The gypsum panel of claim 1, wherein the gypsum core includes a water-resistant additive in an amount sufficient to improve the water-resistant properties of the core.

8-9. (Currently Amended) The gypsum panel of claim ₹8, wherein the water-resistant additive comprises at least one of a wax emulsion, an organopolysiloxane and a siliconate.

9.10. (Currently Amended) The gypsum panel of claim 89, wherein the gypsum core is essentially void of starch.

10:11. (Currently Amended) The gypsum panel of claim 1 having an wherein the surface coating of the aggregate material adhered to the radiation cured coating has a surface morphology which enhances bonding of surface treatments to the panel.

11-12. (Currently Amended) The gypsum panel of claim 71 wherein the aggregate material is selected from ceramic microspheres, glass microspheres, calcium carbonate, sand, aluminum oxide, crushed stone, glass fibers, gypsum and perlite.

12.13. (Currently Amended) The gypsum panel of claim 1, wherein:

the gypsum core includes at least one of a wax emulsion, an organopolysiloxane and a siliconate in an amount sufficient to improve the water-resistant properties of the core;

the gypsum core is essentially void of starch and the fibrous met facing material comprises glass fibers.

14. (NEW) A method of making the gypsum panel of claim 1 comprising sandwiching a gypsum slurry between two moving sheets of facing material, one of said sheets comprising a fibrous facing material, curing and drying the gypsum slurry to form a set gypsum panel, applying a coating of a radiation curable formulation, which is essentially free of any unreactive components, onto the fibrous facing material of the set gypsum panel mat, applying a surface

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coating of an aggregate material onto the coating of the radiation curable formulation and curing the coating of the radiation curable formulation.

15. (NEW) The method of claims 14 wherein the aggregate material is selected from ceramic microspheres, glass microspheres, calcium carbonate, sand, aluminum oxide, crushed stone, glass fibers, gypsum and perlite.

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